

Amendments to Claims

Please amend the claims as indicated in the listing that follows, which listing supersedes and replaces all prior listings of claims:

1. (Previously Amended) A circuit board assembly comprising,
 - A. a board having at least two circuit assemblies thereon,
 - B. each circuit assembly including one or more circuit elements disposed within a plenum that is associated with that respective circuit assembly,
 - C. each plenum having (i) an air flow inlet edge through which cooling air flow is received, and (ii) an air flow outlet edge through which the air flow exits, and
 - B. each circuit assembly being disposed on opposing sides of a central source of cooling air for the circuit board assembly.
2. (Previously Amended) The circuit board assembly of claim 1, comprising a panel that provides any of mechanical protection and electromagnetic interference (EMI) protection when the circuit board assembly is operationally coupled in a slot in a chassis.
3. (Previously Amended) The circuit board assembly of claim 2, wherein the panel comprises an inlet for cooling air.
4. (Previously Amended) The circuit board assembly of claim 3, wherein the central source of cooling air comprises the panel inlet.
5. (Previously Amended) The circuit board assembly of claim 4, wherein the panel inlet is disposed in a central region of the panel.
6. (Previously Amended) The circuit board assembly of claim 3, wherein the panel inlet is substantially aligned with an air flow inlet of a chassis to which the circuit board assembly is operationally coupled.

7. (Previously Amended) A circuit board assembly comprising,
 - A. a board having at least two circuit assemblies thereon,
 - B. each circuit assembly including one or more circuit elements disposed within a plenum associated with that respective circuit assembly,
 - C. each plenum having (i) an air flow inlet edge through which cooling air flow is received, (ii) an air flow outlet edge through which the air flow exits, and (iii) one or more flow-diverting elements that define, at least in part, impedance to the air flow,
 - D. each circuit assembly being disposed on opposing sides of a central source of cooling air for the circuit board assembly.
8. (Previously Amended) The circuit board assembly of claim 7, wherein one or more of the flow-diverting elements are disposed nearer one of the air flow inlet and air flow outlet edges of the respective circuit assembly than the other of those edges of that circuit assembly .
9. (Previously Amended) The circuit board assembly of claim 7, wherein one or more of the flow-diverting elements comprises a heat dissipative element.
10. (Previously Amended) The circuit board assembly of claim 9, wherein the heat dissipative element is mounted on any of a substrate, cold plate or circuit component that comprise the circuit board assembly.
11. (Previously Amended) The circuit board assembly of claim 7, comprising a cover affixed to the circuit board assembly, the cover defining at least one of the aforesaid plenums.
12. (Previously Amended) The circuit board assembly of claim 7, comprising at least two covers, each defining a respective one of the aforesaid plenums.
13. (Previously Amended) The circuit board assembly of claim 11, wherein one or more of the flow-diverting elements are disposed in at least one of the aforesaid plenums.

Page 4

14. (Previously Amended) The circuit board assembly of claim 13, wherein one or more flow-diverting elements are adapted to shape an air flow pattern within at least one of the aforesaid plenums.
15. (Previously Amended) A circuit board assembly comprising,
 - A. a board having at least two circuit assemblies thereon,
 - B. each circuit assembly including one or more circuit elements disposed within a plenum that is associated with that respective circuit assembly,
 - C. each plenum having (i) an air flow inlet edge through which cooling air flow is received, and (ii) an air flow outlet edge through which the air flow exits, and (iii) one or more flow-diverting elements that define, at least in part, that circuit assembly's impedance to air flow in a chassis, wherein those one or more flow-diverting elements are adapted so that the impedance of that circuit assembly is sized in relation to one or more further circuit boards in a chassis in which the circuit board assembly is mounted,
 - D. each circuit assembly being disposed on opposing sides of a central source of cooling air for the circuit board assembly.
16. (Previously Amended) The circuit board assembly of claim 15, the further improvement wherein at least one of the one or more flow-diverting elements comprises a heat dissipative element.
17. (Previously Amended) The circuit board assembly of claim 16, wherein the heat dissipative element is mounted on any of a substrate, cold plate or circuit component that comprise the circuit board assembly.
18. (Previously Amended) The circuit board assembly of claim 15, the further improvement comprising a cover affixed to the circuit board assembly, the cover defining at least one of the aforesaid plenums.
19. (Previously Amended) The circuit board assembly of claim 18, the further improvement wherein one or more of the flow-diverting elements are disposed within at least one of the aforesaid plenums.

20. (Previously Amended) The circuit board assembly of claim 18, wherein one or more flow-diverting elements are adapted to shape an air flow pattern within at least one of the aforesaid plenums.
21. (Previously Amended) The circuit board assembly of claim 18, where at least one flow-diverting element is adapted to divert air flow to/from components or regions of the board requiring greater/less air flow.
22. (Previously Amended) The circuit board assembly of claim 18, wherein the cover is removably coupled to the circuit board.
23. (Previously Amended) The circuit board assembly of claim 18, wherein the cover is substantially planar.
24. (Previously Amended) The circuit board assembly of claim 18, wherein the cover is any of sized and shaped substantially similarly to one or more of the aforesaid circuit assemblies
25. (Currently Amended) A digital data processor comprising
 - a chassis,
 - one or more circuit boards disposed in the chassis, each circuit board comprising,
 - at least two circuit assemblies , each circuit assembly having
 - one or more circuit elements disposed within a plenum that is associated with that respective circuit assembly, each plenum having (i) an air flow inlet edge through which cooling air flow is received, and (ii) an air flow outlet edge through which the air flow exits, and (iii) one or more flow-diverting elements that define, at least in part, that circuit assembly's impedance to air flow in the chassis, wherein those one or more flow-diverting elements are adapted so that the impedance of that circuit assembly is sized in relation to that one or more further circuit boards in the chassis,

each circuit assembly being disposed on opposing sides of a central source of cooling air for that respective circuit board.

26. (Currently Amended) The digital data processor of claim 25, ~~comprising wherein at least one~~ circuit board comprises a panel that provides any of mechanical protection and electromagnetic interference (EMI) protection when that circuit board is operationally coupled in a slot in the chassis.
27. (Previously Amended) The digital data processor of claim 26, wherein the panel comprises an inlet for cooling air.
28. (Previously Amended) The digital data processor of claim 27, wherein the central source of cooling air comprises the panel inlet.
29. (Previously Amended) The digital data processor of claim 28, wherein the panel inlet is disposed in a central region of the panel.
30. (Previously Amended) The digital data processor of claim 27, wherein the panel inlet is substantially aligned with an air flow inlet of the chassis.